

FIG. 1

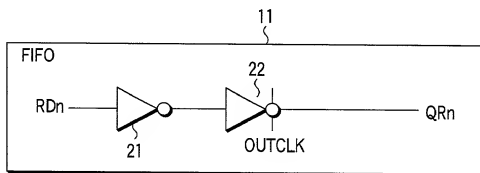


FIG. 2

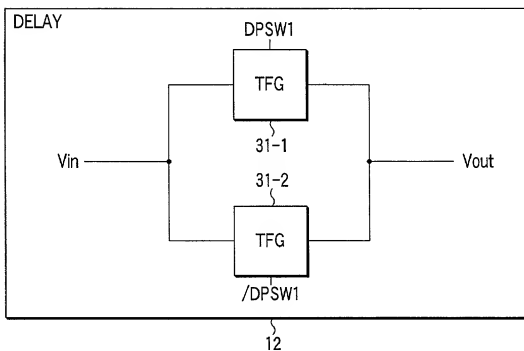


FIG. 3

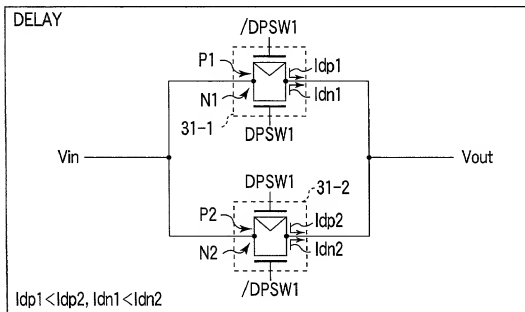


FIG. 4

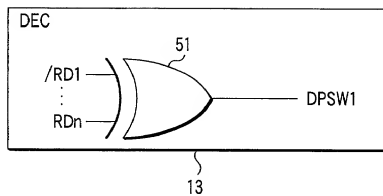


FIG. 5

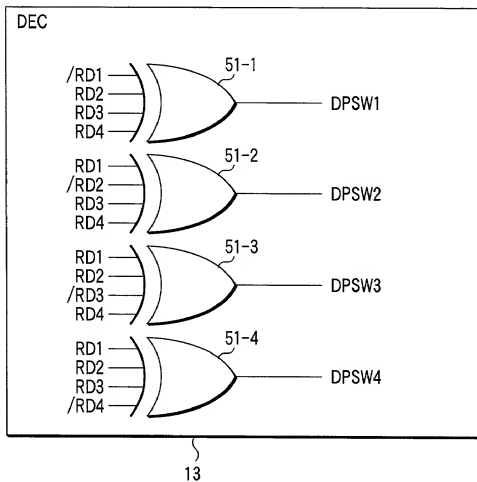


FIG. 6

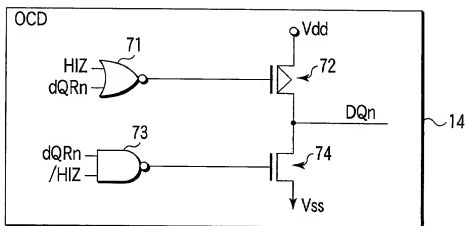


FIG. 7

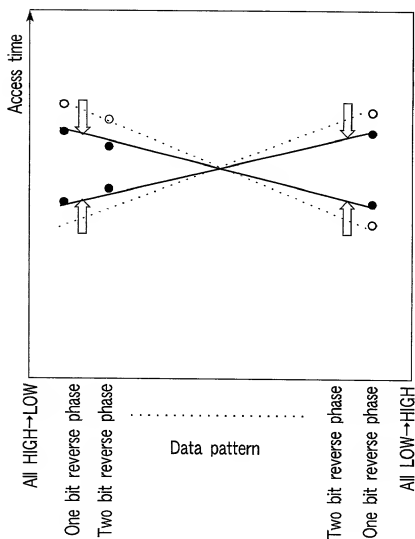


FIG. 8

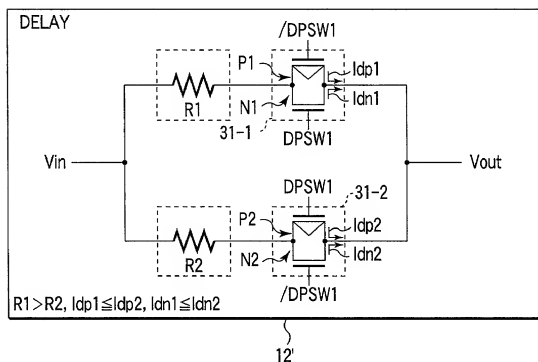


FIG. 9

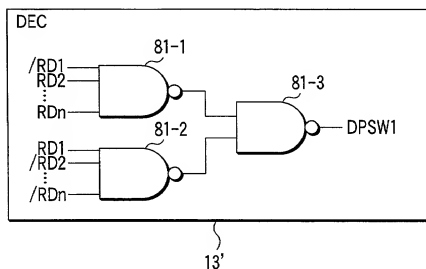


FIG. 10

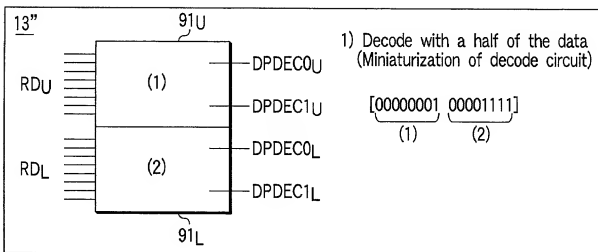


FIG. 11A

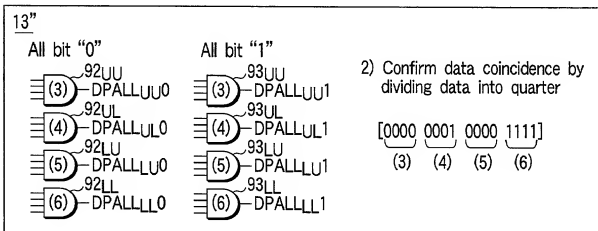


FIG. 11B

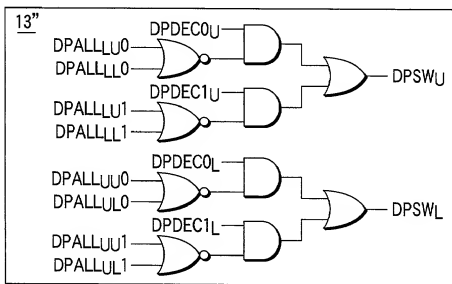


FIG. 11C

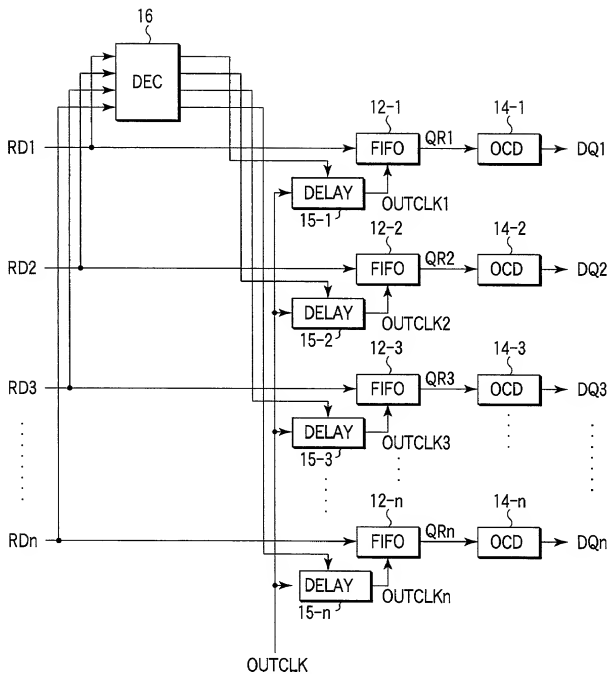


FIG. 12

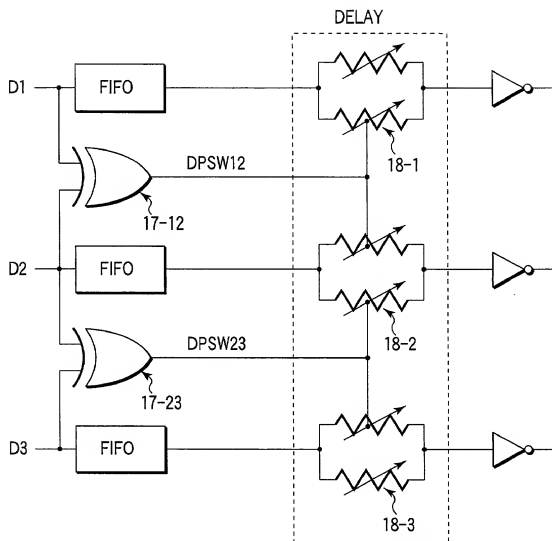


FIG. 13

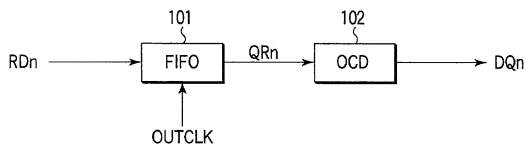


FIG. 14 PRIOR ART



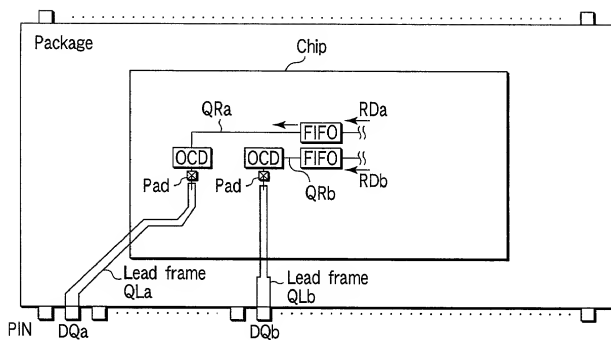


FIG. 15A PRIOR ART

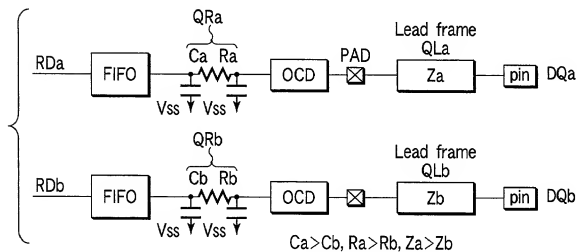


FIG. 15B PRIOR ART

FIG. 16A  
PRIOR ART

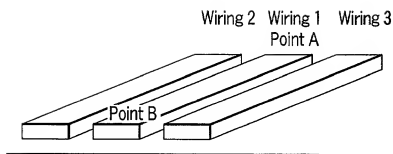


FIG. 16B  
PRIOR ART

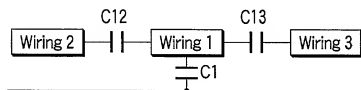
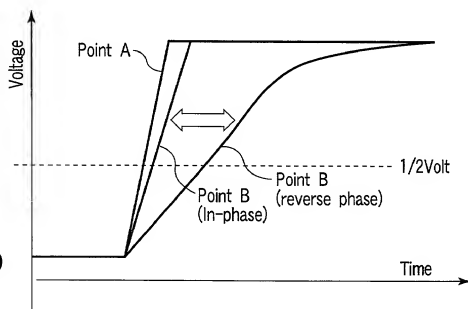


FIG. 16C  
PRIOR ART

	Wiring 2	Wiring 1	Wiring 3	Data pattern
Potential change				In-phase
				Reverse phase
				In-phase
				Reverse phase

FIG. 16D  
PRIOR ART



Potential change ( $\Delta V$ ) by the transient current which flows the power source GND  

$$\Delta V = N \cdot L_{\text{eff}} \cdot (di/dt)$$

Effective inductance ( $L_{\text{eff}}$ ) of PKG (power source)  
 Current drive performance ( $di/dt$ ) of the driver  
 Simultaneous switching number ( $N$ )

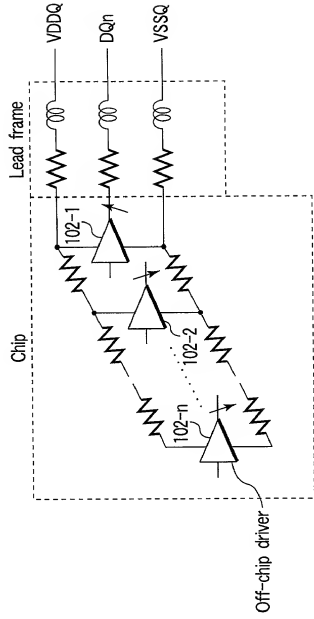


FIG. 17 PRIOR ART

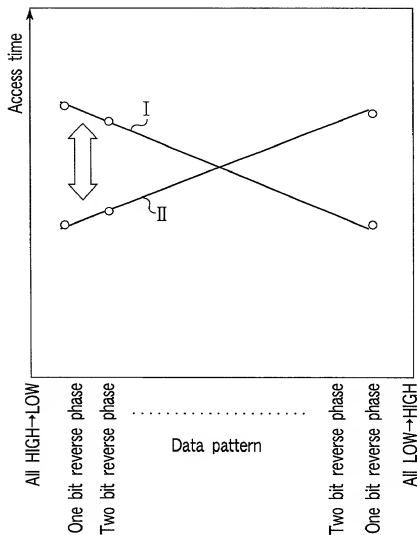


FIG. 18 PRIOR ART